for blue

Work Order ID 62632

Tuesday, October 05, 2010 1:01:35 PM

Item ID: D206-667-103TRN **Accept** **Setup Start**

Revision ID: **Stop**

Item Name: Crosstube Turning DetailL

Start Date: 10/5/2010 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 10/19/2010 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start

Approvals: **Process Plan:** M **Date:** 10-10-05 **Tooling:** _____ **Date:** _____

Stop

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D206-667-143	Rev C								
100	MORI SEIKI CNC LATHE LARGE	0.00				1			
Mori Seiki	**Memo**	0.00							
Mori Seiki CNC Lathe Large	1-Fill tube with sand & install plugs DT8534 on both ends as per Folio FA087□2-Turn first side as per Folio FA087□3-File down transition lines smooth.								
	SA 10/10/20								
110	QC1- Inspect dimensions to dimension sheet	0.00				1			
QC	**Memo**	0.00							
Quality Control									
	SA 10/10/20								
120	MORI SEIKI CNC LATHE LARGE	0.00				1			
Mori Seiki	**Memo**	0.00							
Mori Seiki CNC Lathe Large	1-Turn second side as per Folio FA087□2-File down transition lines smooth. □ 3-Remove sand and plugs								
	SA 10/10/20								

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D206-667-103TRN PAR #: N/A. Fault Category: Crossbe NCR: (Yes) No DQA: [illegible] Date: 10.10.26

Resolution: Accepted. Disposition: Use-as is QA: N/C Closed: [signature] Date: 10/10/26

NCR: 62632		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B: Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector
10.10.24	MD	OD ABOVE CUFF IS 1.980" (0.002 UNDER TOL)	10.10.24 QS1 042	Acceptable. REF ATTACHED STR	10/10/25	J.A 10/10/25	10.10.24 QS1 042	S 10/10/25
		RC: Process						

NOTE: Date & initial all entries

Work Order ID 62632

Tuesday, October 05, 2010 1:01:35 PM

Item ID: D206-667-103TRN **Accept** **Setup Start** **Stop**

Revision ID:

Item Name: Crosstube Turning DetailL

Start Date: 10/5/2010 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 10/19/2010 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC1- Inspect dimensions to dimension sheet	0.00				1			
QC	**Memo**	0.00							
Quality Control	SA 10/10/25								
140	QC8- Inspect parts - second check	0.00				1			
QC	**Memo**	0.00							
Quality Control	G.A 10/10/25								
150	Crosstubes Chemical Conversion	0.00				1			
HandFXtube	**Memo**	0.00							
Hand Finishing Crosstubes	SAD 10-10-25								

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W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Work Order ID 62632

Tuesday, October 05, 2010 1:01:35 PM

Item ID: D206-667-103TRN **Accept** **Setup Start** **Stop**

Revision ID:

Item Name: Crosstube Turning DetailL

Start Date: 10/5/2010 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 10/19/2010 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	QC3- Inspect Part Finish	0.00				12			
QC	**Memo**	0.00							
Quality Control									
170	Packaging	0.00				1			
Packaging	**Memo**	0.00							
Packaging	Identify and stock in kanban rack ☐Location: LG								
180	QC21- Final Inspection - Work Order Release	0.00							
QC	**Memo**	0.00							
Quality Control									

=7m-1 10/10/25

SAD 10-10-25

10/10/26 MF

MF 10-10-25.

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Picklist Print

Tuesday, October 05, 2010 1:01:39 PM

Work Order ID: 62632

Parent Item: D206-667-103TRN

Parent Item Name: Crosstube Turning DetailL

Start Date: 10/5/2010 **Required Date:** 10/19/2010

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev:A 08-03-06 new issue DD verified by:ec
IPP Rev B 08.04.02 removed polish EC verified by DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6002-115		Manufactured	No			110	Each	50.0000	1	1			
Crosstube Material													

Location	Loc Qty	Loc Code
LG	50	
34684	1	
34776	49	

10/10/20

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	62432
Description: Crosstube Assembly (206L High Fwd)	Part Number:	D206-667-143
Inspection Dwg: D206-667-143 **Rev:** C		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

	Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	2.240	+0.005/-0.000	2.236		✓		
	1.982	+0.005/-0.000	2.179		✓		1.980
	2.019	+0.005/-0.000	2.020	✓			OK KP 10.10.22
	2.058	+0.005/-0.000	2.062	✓			
	2.097	+0.005/-0.000	2.101	✓			
	2.136	+0.005/-0.000	2.139	✓			
	2.176	+0.005/-0.000	2.181	✓			
	2.201	+0.005/-0.000	2.206	✓			
	0.125	+/-0.010	.120	✓			
	0.400 x 30°	+/-0.010	.400 x 30°	✓			
	R0.063	+/-0.010	R .063	✓			
	R0.500	+/-0.010	R.500	✓			
	4.438	+/-0.030	4.460	✓			
SIDE B	104.98	+/-0.020					
	2.240	+0.005/-0.000	2.244	✓			
	1.982	+0.005/-0.000	2.187	✓			1.983
	2.019	+0.005/-0.000	2.024	✓			OK KP 10.10.22
	2.058	+0.005/-0.000	2.063	✓			
	2.097	+0.005/-0.000	2.102	✓			
	2.136	+0.005/-0.000	2.140	✓			
	2.176	+0.005/-0.000	2.181	✓			
	2.201	+0.005/-0.000	2.205	✓			
	0.125	+/-0.010	.120	✓			
	0.400 x 30°	+/-0.010	.400 x 30°	✓			
	R0.063	+/-0.010	R.063	✓			
	R0.500	+/-0.010	R.500	✓			
	4.438	+/-0.030	4.460	✓			

Measured by:		Audited by:	H.A	Preliminary Approval:	N/A
Date:	10/10/25	Date:	10/10/25	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.05.06	New Issue (P/O D206-667-103)	KJ/RF	
B	06.03.09	Dwg Rev updated	KJ/JLM	
C	10.09.13	Dwg Rev updated	KJ	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Item	Qty -143	Part Number	Description
1	X	D206-667-143	CROSSTUBE ASSEMBLY (206L HIGH FWD)
2	1	D6002-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2891-1	SUPPORT
6	4	D3595-063-395	RUBBER CUSHION
7	4	MS21920-20	CLAMP (OR MS21920-21)
8	14	MS20601AD4W8	RIVET (OR NAS9302B-4-8)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

1) MATERIAL: MANUFACTURED FROM D6002-115
   FINISHED LENGTH = 104.98±0.020
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
   PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
   PAINT OUTSIDE PER DART QSI 005 4.2
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
4) UNITS: INCHES UNLESS OTHERWISE NOTED.
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
6) IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-143" AND BATCH NUMBER ON INSIDE OF CUFF USING VIBRATING STYLUS.
7) WEIGHT: 15.5 lbs
8) PART IS SYMMETRIC ABOUT CENTERLINE.
9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
10) BEND PROGRESSIVELY WITH A MINIMUM OF 10 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
12) INSTALL D2891-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
13) INSTALL MS21920-20 CLAMPS (OR -21) WITH D3595-063-395 RUBBER CUSHIONS TO SECURE THE D2891-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SIGN
RE
ENG
UNCONT
SUBJECT
WIT
WO
NO. 62432
PS 10-10-05

RELEASED
08/11/14

REV.	DESCRIPTION	BY	DATE
C	REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-395 WAS D2856-400-694 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCE (ZN D3-3, C4-3, C5-3); RELOCATED FLAG #6 (ZN A8-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4.	RF	08.11.06
B	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHT/AA SKUDTUBES	PH	05.07.26
A	NEW ISSUE	CP	00.11.17

DESIGN		**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D206-667-143	SHEET 1 OF 4
APPROVED		TITLE	SCALE
DE APPR.		CROSSTUBE ASS'Y (206L HIGH FWD)	NTS
DATE	08.11.06		

Dart Aerospace Ltd

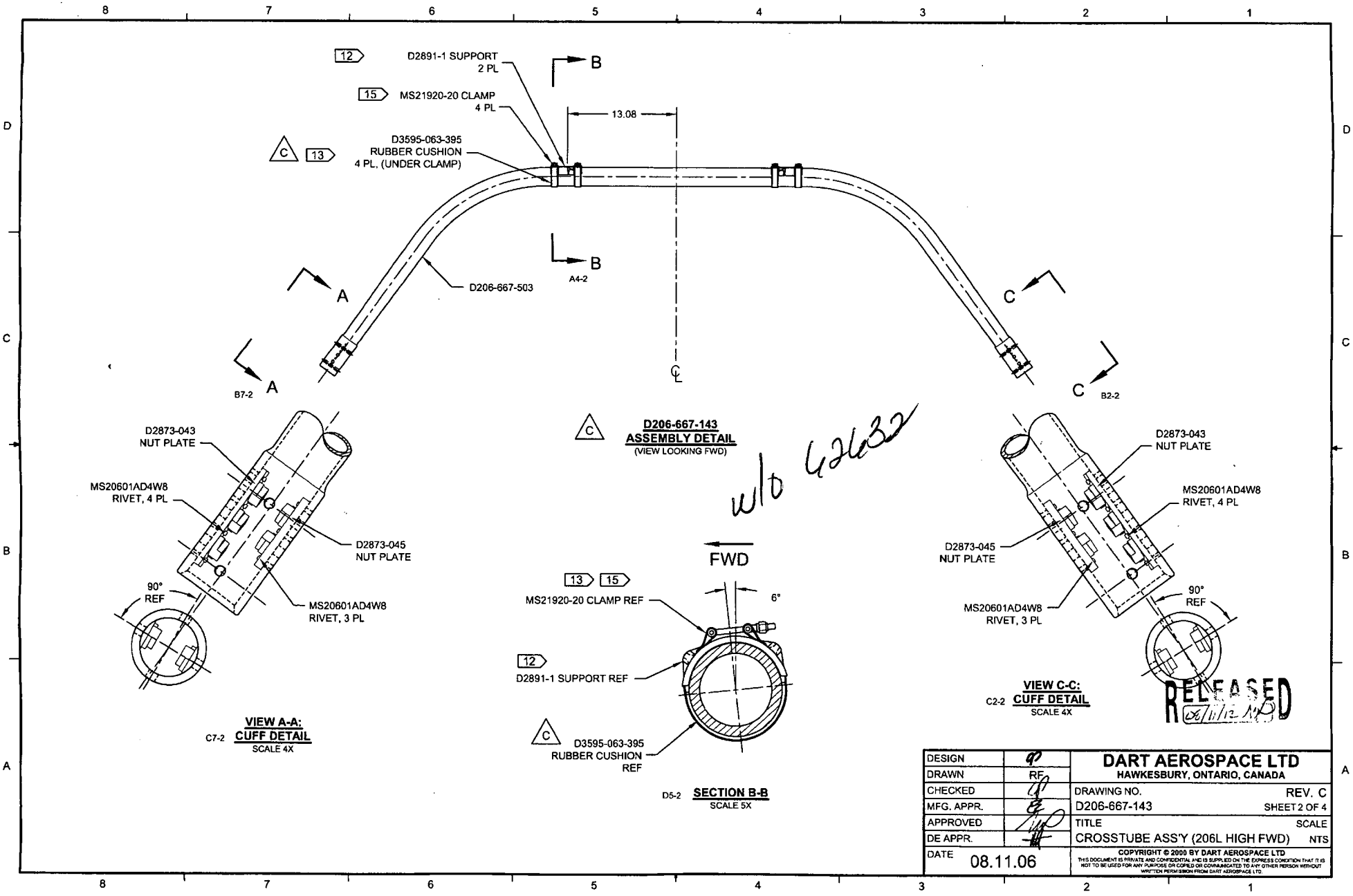
W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries



DESIGN		**DART AEROSPACE LTD**	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D206-667-143	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		CROSSTUBE ASS'Y (206L HIGH FWD)	NTS
DATE	08.11.06		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

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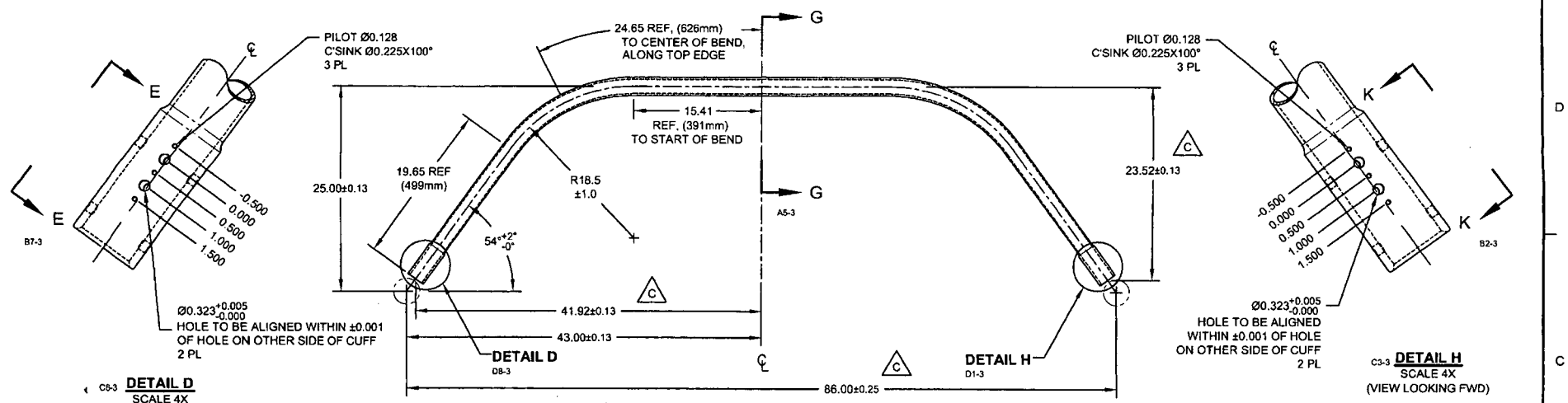
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

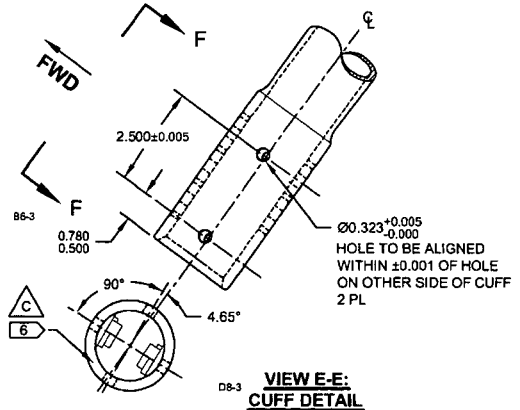


C8-3 **DETAIL D**
SCALE 4X
(VIEW LOOKING FWD)

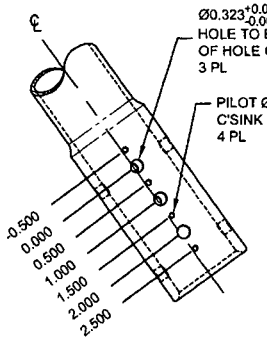
C3-3 **DETAIL H**
SCALE 4X
(VIEW LOOKING FWD)

D206-667-503
BENDING AND DRILLING DETAIL
(VIEW LOOKING FWD)

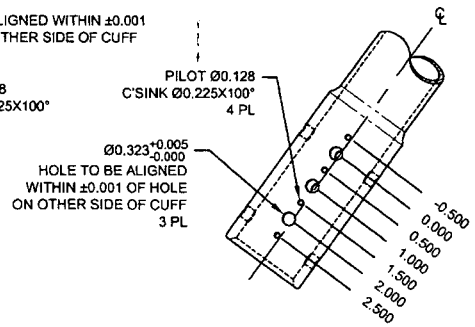
w/o 42632



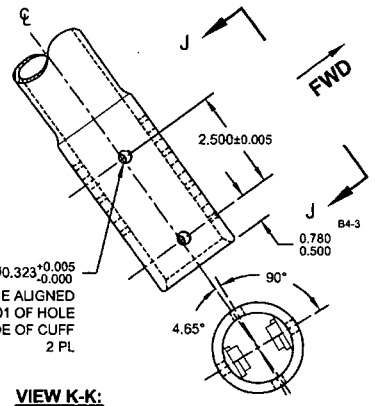
D8-3 **VIEW E-E:**
CUFF DETAIL
SCALE 4X



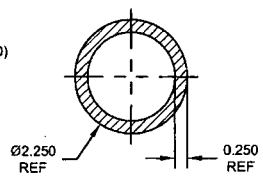
B7-3 **VIEW F-F**
(VIEW LOOKING AFT, ROTATED)



B2-3 **VIEW J-J**
(VIEW LOOKING AFT, ROTATED)



D1-3 **VIEW K-K:**
CUFF DETAIL
SCALE 4X



D4-3 **SECTION G-G**
SCALE 5X

RELEASED
05/11/12 JMD

DESIGN		**DART AEROSPACE LTD** HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED		DRAWING NO. D206-667-143 REV. C SHEET 3 OF 4
MFG. APPR.		
APPROVED		TITLE CROSSTUBE ASS'Y (206L HIGH FWD) SCALE NTS
DE APPR.		
DATE 08.11.06		

Dart Aerospace Ltd

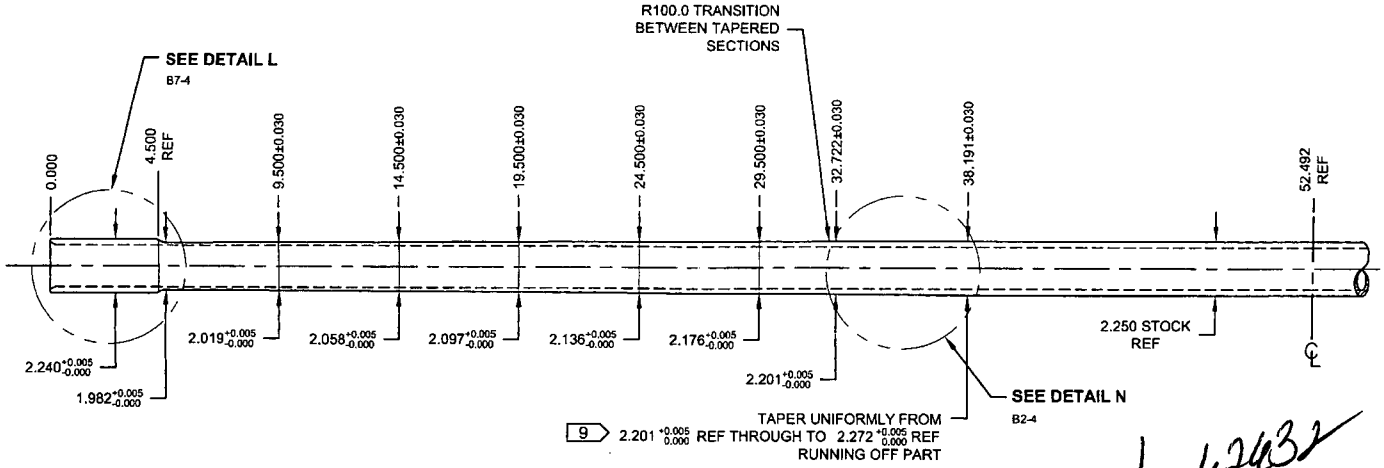
W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

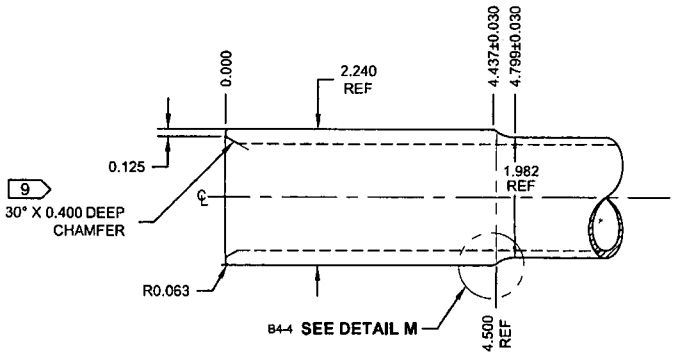
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

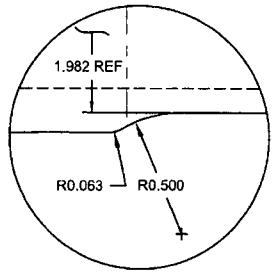


w/o 42432

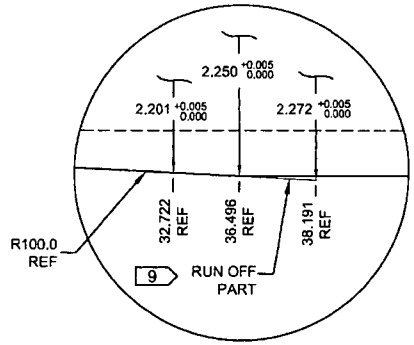
C TURNING DETAIL



D7-4 **DETAIL L: CROSSTUBE CUFF**
NOT TO SCALE



A6-4 **DETAIL M: CUFF TRANSITION**
NOT TO SCALE



C4-4 **DETAIL N: TAPER RUN-OFF**
NOT TO SCALE

RELEASED

DESIGN		**DART AEROSPACE LTD**	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D206-667-143	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		CROSSTUBE ASS'Y (206L HIGH FWD)	NTS
DATE	08.11.06		

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Excerpt from STR-D206-667-2

SECTION	Cross tube	Damage Tolerance	O.D. (in)	I.D. (in)	Area (in^2)	Inertia (in^4)
A-A	Bell Fwd	0.000	2.250	1.750	1.571	0.798
	Bell Fwd w/ dam. tol.	0.005			1.566	0.791
	Dart Fwd	0.000	2.250	1.750	1.571	0.798
	Dart Fwd w/ dam. tol.	0.015			1.495	0.751
B-B	Bell Fwd	0.000	2.207	1.750	1.420	0.704
	Bell Fwd w/ dam. tol.	0.005			1.415	0.698
	Dart Fwd	0.000	2.196	1.750	1.382	0.681
	Dart Fwd w/ dam. tol.	0.015			1.306	0.636
C-C	Bell Fwd	0.000	2.173	1.750	1.303	0.634
	Bell Fwd w/ dam. tol.	0.005			1.298	0.628
	Dart Fwd	0.000	2.163	1.750	1.269	0.614
	Dart Fwd w/ dam. tol.	0.015			1.193	0.569
D-D	Bell Fwd	0.000	2.139	1.750	1.188	0.567
	Bell Fwd w/ dam. tol.	0.005			1.183	0.561
	Dart Fwd	0.000	2.130	1.750	1.158	0.550
	Dart Fwd w/ dam. tol.	0.015			1.082	0.505
E-E	Bell Fwd	0.000	2.105	1.750	1.075	0.503
	Bell Fwd w/ dam. tol.	0.005			1.070	0.498
	Dart Fwd	0.000	2.099	1.750	1.055	0.492
	Dart Fwd w/ dam. tol.	0.015			0.979	0.448
F-F	Bell Fwd	0.000	2.045	1.750	0.879	0.398
	Bell Fwd w/ dam. tol.	0.005			0.874	0.393
	Dart Fwd	0.000	2.039	1.750	0.860	0.388
	Dart Fwd w/ dam. tol.	0.012			0.787	0.348
G-G	Bell Fwd	0.000	1.986	1.750	0.692	0.303
	Bell Fwd w/ dam. tol.	0.005			0.687	0.298
	Dart Fwd	0.000	1.980	1.750	0.674	0.294
	Dart Fwd w/ dam. tol.	0.012			0.601	0.255
H-H	Bell Fwd	0.000	2.250	1.750	1.571	0.798
	Bell Fwd w/ dam. tol.	0.005			1.566	0.791
	Dart Fwd	0.000	2.240	1.750	1.536	0.775
	Dart Fwd w/ dam. tol.	0.030			1.445	0.710

SECTION **	Cross tube	Bending Ultimate (lb*in)	Bending Yield (lb*in)	Tension Ultimate (lb)	Tension Yield (lb)	Shear Ultimate (lb)
A-A	Bell fwd w/ DT	46425	39391	103343	87685	65763
	Dart fwd w/ DT	51426	44375	115113	98668	61294
	Margin of Safety	0.11	0.13	0.11	0.13	-0.07
B-B	Bell fwd w/ DT	41755	35429	93408	79255	59442
	Dart fwd w/ DT	44567	38463	100593	86223	53563
	Margin of Safety	0.07	0.09	0.08	0.09	-0.10
C-C	Bell fwd w/ DT	38160	32378	85689	72705	54529
	Dart fwd w/ DT	40509	34964	91894	78766	48931
	Margin of Safety	0.06	0.08	0.07	0.08	-0.10
D-D	Bell fwd w/ DT	34649	29399	78089	66257	49693
	Dart fwd w/ DT	36541	31543	83327	71423	44369
	Margin of Safety	0.05	0.07	0.07	0.08	-0.11
E-E	Bell fwd w/ DT	31219	26489	70609	59911	44933
	Dart fwd w/ DT	32895	28398	75398	64627	40147
	Margin of Safety	0.05	0.07	0.07	0.08	-0.11
F-F	Bell fwd w/ DT	25360	21518	57702	48959	36719
	Dart fwd w/ DT	26286	22664	60614	51955	32275
	Margin of Safety	0.04	0.05	0.05	0.06	-0.12
G-G	Bell fwd w/ DT	19828	16824	45374	38499	28874
	Dart fwd w/ DT	19812	17085	46274	39664	24640
	Margin of Safety	-0.001	0.02	0.02	0.03	-0.15
H-H	Bell fwd w/ DT	46425	39391	103343	87685	65763
	Dart fwd w/ DT	48829	42421	111242	95350	59233
	Margin of Safety	0.05	0.08	0.08	0.09	-0.10

BIN 62629

MARGINS POSITIVE

∴ OK

10.10.22

BIN 62632

MARGINS NEGATIVE

@ SECTION G-G (ABOVE CUFF)

HOWEVER BENDING MOMENT IS NEGLIGABLE AT THIS LOCATION, IE. TUBE WILL FAIL IN BENDING NEAR UPPER SUPPORTS BEFORE THIS AREA. IE. NOT CRITICAL SECTION

10.10.22